## CD9 Monoclonal Mouse Antibody (HI9a) -**Biotium Choice**

CD9 (clone HI9a) is a validated mouse monoclonal antibody that recognizes the human tetraspanin protein CD9. The antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance.

## **Product Description**

CD9 (clone HI9a) is a mouse monoclonal antibody that recognizes the human tetraspanin protein CD9. 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-PE or Astral<sup>TM</sup> tandem dyes. They are supplied in PBS, 0.1% BSA, 0.05% azide. 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	#P003			
SwissProt	P21926			
<b>Biotium Choice Antibody</b>	Primary			
Antibody type	Biotium Choice Flow Antibodies, Primary			
Clonality	Monoclonal			
Host species	Mouse			
Clone	HI9a			
Isotype	IgG1, kappa			
Antibody reactivity	CD9			
Synonyms	Tetraspanin-29 (TSPAN29); BA-2/p24 antigen; BA2; BTCC1; CD9; Cell growth-inhibiting gene 2 protein; DRAP27; GIG2; Leukocyte antigen MIG3; MIG3; Motility-related protein (MRP1); p25			
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	25 kDa			
Antibody target cellular	Exosomes/EVs, Plasma membrane			
localization Cell/tissue expression	Exosomes, Platelets, Basophils, Eosinophils, Epithelial cells, Lymphocytes			
Verified antibody applications	Flow (surface) (verified), WB (verified), IF (verified)			
Positive control	Human peripheral blood platelets, BT-20, MCF-7, HeLa, or ZR-75 cells. Cervix or esophagus tissue.			
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	Purified: 0.5 mg/mL in PBS/0.05% azide, Conjugates: 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	Store at 2 to 8 °C			
Volume per assay	5 uL/test			
Regulatory status	For research use only (RUO)			

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Product attributes

Conjugation	Ex/Em	Conc.	Size	Catalog No.	Availability
CF®405M	416/452 nm	100 ug/mL	25 tests (125 uL)	P003S-405M-125	Discontinued, see
			100 tests (500 uL)	P003S-405M-500	replacement P015-405M
CF®488A	490/516 nm	100 ug/mL	25 tests (125 uL)	P003S-488A-125	Discontinued, see
			100 tests (500 uL)	P003S-488A-500	replacement P015-488A
CF®568	562/584 nm	100 ug/mL	25 tests (125 uL)	P003S-568-125	Discontinued, see
			100 tests (500 uL)	P003S-568-500	replacement P015-568
RPE-Astral™616	496, 546, 566/617 nm	100 ug/mL	25 tests (125 uL)	P003S-R616-125	Available
			100 tests (500 uL)	P003S-R616-500	
CF®647Plus	652/668 nm	100 ug/mL	25 tests (125 uL)	P003S-647P-125	Discontinued, see
			100 tests (500 uL)	P003S-647P-500	replacement P015-647P
CF®700	696/721 nm	100 ug/mL	25 tests (125 uL)	P003S-700-125	Discontinued, see
			100 tests (500 uL)	P003S-700-500	replacement P015-700
APC-Astral <sup>TM</sup> 813	633, 638/813 nm	100 ug/mL	25 tests (125 uL)	P003S-A813-125	Available
			100 tests (500 uL)	P003S-A813-500	
R-PE	496, 546, 565/576 nm	50 ug/mL	25 tests (125 uL)	P003S-RPE-125	Available
			100 tests (500 uL)	P003S-RPE-500	
Purified (BSA-free)	N/A	0.5 mg/mL	200 uL (100 ug)	P003-200uL	Discontinued, see replacement P015