

## CD81 (Mouse/Rat) Recombinant Monoclonal Hamster Antibody (24MS04.81) – Biotium Choice

Blottum

CD81 (24MS04.81) is a validated recombinant hamster monoclonal antibody that recognizes the tetraspanin protein CD81 from mouse and rat. The antibody belongs to the Biotium Choice list of select antibodies that have been formulated and validated in-house for optimal performance.

## **Product Description**

CD81 (24MS04.81) is a recombinant hamster monoclonal antibody that recognizes the tetraspanin protein CD81 from mouse and rat. 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 purified and BSA-free.

CD81 is a 26 kD non-glycosylated member of the tetraspanin superfamily (TM4SF), also known as TAPA-1. CD81 is expressed on T and B cells, NK cells, dendritic cells, thymocytes, endothelial cells, and fibroblasts. CD81 induces B cell adhesion via the VLA-4 integrin and has been shown to play a role in early T cell development. CD81 associates with several other cell-surface proteins in a multimolecular complex, including CD19, CD21, CD20, CD37, CD53, and CD82 in B cells, and CD4, CD8 and CD82 in T 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 CD9 (24MS04.9) and human CD81 (2304.81).

<u>View our full catalog of Biotium Choice antibodies</u>, optimized and validated for the best results in flow cytometry.

## **Exosome Stains and Antibodies**

Biotium also offers ExoBrite<sup>TM</sup> CD81 Flow Antibody and ExoBrite<sup>TM</sup> CD81 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.

Conjugation	Ex/Em	Conc.	Size	Catalog No.	Dye Features
CF®405M	416/452 nm	100 ug/mL	25 tests (125 uL)	P017-405M-125	CF®405M Features
			100 tests (500 uL)	P017-405M-500	
<u>CF®488A</u>	490/516 nm	100 ug/mL	25 tests (125 uL)	P017-488A-125	CF®488A Features
			100 tests (500 uL)	P017-488A-500	
<u>CF® 568</u>	562/584 nm	100 ug/mL	25 tests (125 uL)	P017-568-125	CF®568 Features
			100 tests (500 uL)	P017-568-500	
CF® 647Plus	652/668 nm	100 ug/mL	25 tests (125 uL)	P017-647P-125	CF®647Plus Features
			100 tests (500 uL)	P017-647P-500	
Purified (BSA-free)	N/A	5 mg/mL	1 mg	P017-1MG	
			5 mg	P017-5MG	

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## **Product attributes**

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Antibody number	#P017		
SwissProt	P35762		
<b>Biotium Choice Antibody</b>	Primary		
Antibody type	Biotium Choice Flow Antibodies, Primary		
Clonality	Recombinant Monoclonal		
Host species	Armenian Hamster		
Clone	24MS04.81		
Isotype	IgG1, kappa		
Antibody reactivity (target)	CD81		
Synonyms	Target of the antiproliferative antibody 1 (TAPA-1)		
Species reactivity	Mouse, Rat		
Human gene symbol	CD81		
Entrez gene ID	12520 (mouse), 25621 (rat)		
Unigene	P35762 (mouse), Q62745 (rat)		
Molecular weight	26 kDa		
Antibody target cellular localization	Exosomes/EVs, Plasma membrane		
Cell/tissue expression	Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages		
Verified antibody applications	Flow (surface) (verified), WB (verified)		
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended		
Positive control	NIH 3T3 cells, RAW 264.7 cells		
Antibody application notes	Immunofluorescence: 1 ug/mL, Western Blot: 0.05 ug/mL, Flow cytometry: 0.5-1 ug/million cells		
Antibody research areas	Exosomes/EVs		
Antibody/conjugate formulation	Purified, BSA-free: 5 mg/mL in PBS without azide, Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide		
Volume per assay	5 uL/test		
Storage Conditions	Note: store unconjugated formats at -10 $^{\circ}\text{C}$ to -35 $^{\circ}\text{C},$ Store at 2 to 8 $^{\circ}\text{C}$		
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.		
Regulatory status	For research use only (RUO)		

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