

## ExoBrite™ CD81 Flow Antibody

Validated antibody for optimal detection of EV marker CD81 in purified or bead-bound EVs by flow cytometry.



### Product Description

ExoBrite™ CD81 Flow Antibody has been validated by Biotium for optimal detection of EV marker CD81 in purified or bead-bound EVs by flow cytometry. The antibody conjugates offer exceptional signal-to-noise and include color options for the Pacific Blue™, FITC, PE, and APC channels.

- **NEW: Now with updated buffer formulation for improved signal-to-noise**
- Optimal detection of EV marker CD81 by flow cytometry
- Validated for purified or bead-bound EVs
- Bright signal and low background
- Available in 6 colors

The most common proteins used as EV markers are CD9, CD63, and CD81, members of the tetraspanin family. These tetraspanins are broadly expressed on many cell types and can therefore be detected on many types of EVs, but their expression levels vary depending on the cell type of origin.

#### EV antibodies you can trust

Other commercially available antibodies for tetraspanin proteins CD9, CD63, and CD81 are generally not validated for isolated EVs and may require tedious optimization for your EV prep and staining protocol. The antibodies and dye labels of ExoBrite™ Flow Antibody Conjugates were carefully selected and validated for robust detection of isolated EVs. In addition, the antibodies are provided in a proprietary buffer formulation for reduced antibody aggregation and brighter EV staining for optimal accuracy and signal-to-noise. [ExoBrite™ Isotype Control Flow Antibodies](#), which have been found to not react with any target in human cells and have the same isotype as the tetraspanin antibodies, are available as a negative control. [Single-color](#) and [3-color](#) ExoBrite™ CD9/CD63/CD81 Antibody Cocktails are also available for high-coverage EV staining or EV phenotyping, respectively.

For general EV staining, Biotium's [ExoBrite™ True EV Membrane Stains](#) offer unparalleled coverage of EVs in a sample and address issues of dye aggregation often seen with PKH and other common membrane dyes. Biotium also offers optimized ExoBrite™ EV Surface stains conjugated to [cholera toxin B \(CTB\)](#), [wheat germ agglutinin \(WGA\)](#), and [Annexin V](#). These stains are specially formulated for bright and specific detection of isolated EVs by flow cytometry. These ExoBrite™ EV Surface stains may also be combined with antibody staining, for multi-parameter analysis.

Biotium also offers conjugated ExoBrite™ Western Antibodies against [CD9](#), [CD63](#), and [CD81](#) designed for optimal detection in EV extracts by fluorescent western blot.

**Note:** In our testing, we have found that ExoBrite™ 490/515 dye may bind to streptavidin coated surfaces or beads if free biotin binding sites are not blocked. We recommend performing a biotin blocking step after binding your biotinylated capture antibody to streptavidin beads or surfaces when using ExoBrite™ 490/515 conjugates. Alternatively, consider using a different ExoBrite™ dye for staining EVs captured on streptavidin beads or surfaces.

### Product attributes

Antibody number	#P005
SwissProt	P60033
Antibody type	Primary
Clonality	Monoclonal
Host species	Mouse
Isotype	IgG1, kappa
Antibody reactivity (target)	CD81
Synonyms	CD81; Target of the antiproliferative antibody 1 (TAPA-1); Tetraspanin-28; Tspan-28
Species reactivity	Baboon, Cynomolgus monkey, Human, Mouse (low reactivity), Non-human primates
Human gene symbol	CD81
Entrez gene ID	975
Unigene	54457
Molecular weight	26 kDa
Antibody target cellular localization	Exosomes/EVs, Plasma membrane
Cell/tissue expression	Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages
Verified antibody applications	Exosome staining (verified)
Shipping condition	Room temperature
Positive control	MCF-7 cells, MCF-7 derived exosomes
Antibody application notes	Recommended concentration for flow cytometry: 5 uL per 0.1 mL exosomes
Antibody research areas	Exosomes/EVs
Antibody/conjugate formulation	Proprietary buffer containing 0.05% sodium 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, Protect fluorescent conjugates from light
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.

## ExoBrite™ Flow Antibody Conjugates

Antibody	Ex/Em	Target	Species Reactivity	Detection Channel	Catalog No.
<a href="#">ExoBrite™ 410/450 CD9 Flow Antibody</a>	416/452 nm	CD9	Human	Pacific Blue™	P003-410
<a href="#">ExoBrite™ 490/515 CD9 Flow Antibody</a>	490/516 nm	CD9	Human	FITC	P003-490
<a href="#">ExoBrite™ 560/585 CD9 Flow Antibody</a>	562/584 nm	CD9	Human	PE	P003-560
<a href="#">ExoBrite™ 640/660 CD9 Flow Antibody</a>	642/663 nm	CD9	Human	APC	P003-640
<a href="#">ExoBrite™ R-PE CD9 Flow Antibody</a>	496, 546, 565/578 nm	CD9	Human	PE	P003-RPE
<a href="#">ExoBrite™ APC CD9 Flow Antibody</a>	651/660 nm	CD9	Human	APC	P003-APC
<a href="#">ExoBrite™ 410/450 CD9 (Mouse) Flow Antibody</a>	416/452 nm	CD9	Mouse	Pacific Blue™	P018-410
<a href="#">ExoBrite™ 490/515 CD9 (Mouse) Flow Antibody</a>	490/516 nm	CD9	Mouse	FITC	P018-490
<a href="#">ExoBrite™ 560/585 CD9 (Mouse) Flow Antibody</a>	562/584 nm	CD9	Mouse	PE	P018-560
<a href="#">ExoBrite™ 640/660 CD9 (Mouse) Flow Antibody</a>	642/663 nm	CD9	Mouse	APC	P018-640
<a href="#">ExoBrite™ APC CD9 (Mouse) Flow Antibody</a>	651/660 nm	CD9	Mouse	APC	P018-APC
<a href="#">ExoBrite™ 410/450 CD63 Flow Antibody</a>	416/452 nm	CD63	Human	Pacific Blue™	P004-410
<a href="#">ExoBrite™ 490/515 CD63 Flow Antibody</a>	490/516 nm	CD63	Human	FITC	P004-490
<a href="#">ExoBrite™ 560/585 CD63 Flow Antibody</a>	562/584 nm	CD63	Human	PE	P004-560
<a href="#">ExoBrite™ 640/660 CD63 Flow Antibody</a>	642/663 nm	CD63	Human	APC	P004-640
<a href="#">ExoBrite™ R-PE CD63 Flow Antibody</a>	496, 546, 565/578	CD63	Human	PE	P004-RPE
<a href="#">ExoBrite™ APC CD63 Flow Antibody</a>	651/660 nm	CD63	Human	APC	P004-APC
<a href="#">ExoBrite™ 410/450 CD63 (Mouse) Flow Antibody</a>	416/452 nm	CD63	Mouse	Pacific Blue™	P022-410
<a href="#">ExoBrite™ 490/515 CD63 (Mouse) Flow Antibody</a>	490/516 nm	CD63	Mouse	FITC	P022-490
<a href="#">ExoBrite™ 560/585 CD63 (Mouse) Flow Antibody</a>	562/584 nm	CD63	Mouse	PE	P022-560
<a href="#">ExoBrite™ 640/660 CD63 (Mouse) Flow Antibody</a>	642/663 nm	CD63	Mouse	APC	P022-640
<a href="#">ExoBrite™ APC CD63 (Mouse) Flow Antibody</a>	651/660 nm	CD63	Mouse	APC	P022-APC
<a href="#">ExoBrite™ 410/450 CD81 Flow Antibody</a>	416/452 nm	CD81	Human	Pacific Blue™	P005-410
<a href="#">ExoBrite™ 490/515 CD81 Flow Antibody</a>	490/516 nm	CD81	Human	FITC	P005-490
<a href="#">ExoBrite™ 560/585 CD81 Flow Antibody</a>	562/584 nm	CD81	Human	PE	P005-560
<a href="#">ExoBrite™ 640/660 CD81 Flow Antibody</a>	642/663 nm	CD81	Human	APC	P005-640
<a href="#">ExoBrite™ R-PE CD81 Flow Antibody</a>	496, 546, 565/578	CD81	Human	PE	P005-RPE
<a href="#">ExoBrite™ APC CD81 Flow Antibody</a>	651/660 nm	CD81	Human	APC	P005-APC
<a href="#">ExoBrite™ 410/450 CD81 (Mouse/Rat) Flow Antibody</a>	416/452 nm	CD81	Mouse, Rat	Pacific Blue™	P019-410
<a href="#">ExoBrite™ 490/515 CD81 (Mouse/Rat) Flow Antibody</a>	490/516 nm	CD81	Mouse, Rat	FITC	P019-490
<a href="#">ExoBrite™ 560/585 CD81 (Mouse/Rat) Flow Antibody</a>	562/584 nm	CD81	Mouse, Rat	PE	P019-560

Antibody	Ex/Em	Target	Species Reactivity	Detection Channel	Catalog No.
<a href="#">ExoBrite™ 640/660 CD81 (Mouse/Rat) Flow Antibody</a>	642/663 nm	CD81	Mouse, Rat	APC	P019-640
<a href="#">ExoBrite™ APC CD81 (Mouse) Flow Antibody</a>	651/660 nm	CD81	Mouse, Rat	APC	P019-APC
<a href="#">ExoBrite™ 410/450 IgG1 Isotype Control Flow Antibody</a>	416/452 nm	Isotype Control	None	Pacific Blue™	P008-410
<a href="#">ExoBrite™ 490/515 IgG1 Isotype Control Flow Antibody</a>	490/516 nm	Isotype Control	None	FITC	P008-490
<a href="#">ExoBrite™ 560/585 IgG1 Isotype Control Flow Antibody</a>	562/584 nm	Isotype Control	None	PE	P008-560
<a href="#">ExoBrite™ R-PE IgG1 Isotype Control Flow Antibody</a>	496, 546, 565/578	Isotype Control	None	PE	P008-RPE
<a href="#">ExoBrite™ 640/660 IgG1 Isotype Control Flow Antibody</a>	642/663 nm	Isotype Control	None	APC	P008-640

## ExoBrite™ Flow Anti-Human CD9/CD63/CD81 Antibody Cocktails

Cocktail	Ex/Em	Detection Channel	Size	Catalog No.
<a href="#">ExoBrite™ CD9/CD63/CD81 Single-Color Antibody Cocktail (Green)</a>	490/516 nm	FITC	25 tests	P030-125
100 tests	P030-500			
<a href="#">ExoBrite™ CD9/CD63/CD81 Single-Color Antibody Cocktail (Orange)</a>	562/584 nm	PE	25 tests	P031-125
100 tests	P031-500			
<a href="#">ExoBrite™ CD9/CD63/CD81 Single-Color Antibody Cocktail (Far-Red)</a>	642/663 nm	APC	25 tests	P032-125
100 tests	P032-500			
<a href="#">ExoBrite™ CD9/CD63/CD81 3-Color Antibody Cocktail (Blue/Green/Far-Red)</a>	411/452 nm 490/516 nm 642/663 nm	Pacific Blue® FITC APC	25 tests	P028-125
100 tests	P028-500			
<a href="#">ExoBrite™ CD9/CD63/CD81 3-Color Antibody Cocktail (Green/Orange/Far-Red)</a>	490/516 nm 562/584 nm 642/663 nm	FITC PE APC	25 tests	P029-125
100 tests	P029-500			

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