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# ExoBrite™ CD9 (Mouse) Flow Antibody

Validated antibody for optimal detection of mouse CD9 EV marker in purified or bead-bound EVs by flow cytometry.



## Product attributes

| | |
|---|---|
| **Antibody number** | #P018 |
| **SwissProt** | P40240 |
| **Antibody type** | Primary |
| **Clonality** | Monoclonal |
| **Host species** | Rat (Rattus norvegicus) |
| **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** | Exosome staining (verified) |
| **Positive control** | RAW 264.7 cells |
| **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. |

## Product Description

ExoBrite™ CD9 (Mouse) Flow Antibody is validated by Biotium for detection of mouse CD9 EV marker in isolated EVs. 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 mouse CD9 EV marker by flow cytometry
- Validated for purified or bead-bound EVs
- Bright signal and low background
- Available in 5 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.

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.

## ExoBrite™ Flow Antibody Conjugates

| Antibody | Ex/Em | Target | Species Reactivity | Detection Channel | Catalog No. |
|---|---|---|---|---|---|
| ExoBrite™ 410/450 CD9 Flow Antibody | 416/452 nm | CD9 | Human | Pacific Blue ™ | P003-410 |
| ExoBrite™ 490/515 CD9 Flow Antibody | 490/516 nm | CD9 | Human | FITC | P003-490 |
| ExoBrite™ 560/585 CD9 Flow Antibody | 562/584 nm | CD9 | Human | PE | P003-560 |
| ExoBrite™ 640/660 CD9 Flow Antibody | 642/663 nm | CD9 | Human | APC | P003-640 |
| ExoBrite™ R-PE CD9 Flow Antibody | 496, 546, 565/578 nm | CD9 | Human | PE | P003-RPE |
| ExoBrite™ APC CD9 Flow Antibody | 651/660 nm | CD9 | Human | APC | P003-APC |
| ExoBrite™ 410/450 CD9 (Mouse) Flow Antibody | 416/452 nm | CD9 | Mouse | Pacific Blue ™ | P018-410 |
| ExoBrite™ 490/515 CD9 (Mouse) Flow Antibody | 490/516 nm | CD9 | Mouse | FITC | P018-490 |
| ExoBrite™ 560/585 CD9 (Mouse) Flow Antibody | 562/584 nm | CD9 | Mouse | PE | P018-560 |
| ExoBrite™ 640/660 CD9 (Mouse) Flow Antibody | 642/663 nm | CD9 | Mouse | APC | P018-640 |

| Antibody | Ex/Em | Target | Species Reactivity | Detection Channel | Catalog No. |
|---|---|---|---|---|---|
| ExoBrite™ APC CD9 (Mouse) Flow Antibody | 651/660 nm | CD9 | Mouse | APC | P018-APC |
| ExoBrite™ 410/450 CD63 Flow Antibody | 416/452 nm | CD63 | Human | Pacific Blue ™ | P004-410 |
| ExoBrite™ 490/515 CD63 Flow Antibody | 490/516 nm | CD63 | Human | FITC | P004-490 |
| ExoBrite™ 560/585 CD63 Flow Antibody | 562/584 nm | CD63 | Human | PE | P004-560 |
| ExoBrite™ 640/660 CD63 Flow Antibody | 642/663 nm | CD63 | Human | APC | P004-640 |
| ExoBrite™ R-PE CD63 Flow Antibody | 496, 546, 565/578 | CD63 | Human | PE | P004-RPE |
| ExoBrite™ APC CD63 Flow Antibody | 651/660 nm | CD63 | Human | APC | P004-APC |
| ExoBrite™ 410/450 CD63 (Mouse) Flow Antibody | 416/452 nm | CD63 | Mouse | Pacific Blue ™ | P022-410 |
| ExoBrite™ 490/515 CD63 (Mouse) Flow Antibody | 490/516 nm | CD63 | Mouse | FITC | P022-490 |
| ExoBrite™ 560/585 CD63 (Mouse) Flow Antibody | 562/584 nm | CD63 | Mouse | PE | P022-560 |
| ExoBrite™ 640/660 CD63 (Mouse) Flow Antibody | 642/663 nm | CD63 | Mouse | APC | P022-640 |
| ExoBrite™ APC CD63 (Mouse) Flow Antibody | 651/660 nm | CD63 | Mouse | APC | P022-APC |
| ExoBrite™ 410/450 CD81 Flow Antibody | 416/452 nm | CD81 | Human | Pacific Blue ™ | P005-410 |
| ExoBrite™ 490/515 CD81 Flow Antibody | 490/516 nm | CD81 | Human | FITC | P005-490 |
| ExoBrite™ 560/585 CD81 Flow Antibody | 562/584 nm | CD81 | Human | PE | P005-560 |
| ExoBrite™ 640/660 CD81 Flow Antibody | 642/663 nm | CD81 | Human | APC | P005-640 |
| ExoBrite™ R-PE CD81 Flow Antibody | 496, 546, 565/578 | CD81 | Human | PE | P005-RPE |
| ExoBrite™ APC CD81 Flow Antibody | 651/660 nm | CD81 | Human | APC | P005-APC |
| ExoBrite™ 410/450 CD81 (Mouse/Rat) Flow Antibody | 416/452 nm | CD81 | Mouse, Rat | Pacific Blue ™ | P019-410 |
| ExoBrite™ 490/515 CD81 (Mouse/Rat) Flow Antibody | 490/516 nm | CD81 | Mouse, Rat | FITC | P019-490 |
| ExoBrite™ 560/585 CD81 (Mouse/Rat) Flow Antibody | 562/584 nm | CD81 | Mouse, Rat | PE | P019-560 |
| ExoBrite™ 640/660 CD81 (Mouse/Rat) Flow Antibody | 642/663 nm | CD81 | Mouse, Rat | APC | P019-640 |
| ExoBrite™ APC CD81 (Mouse) Flow Antibody | 651/660 nm | CD81 | Mouse, Rat | APC | P019-APC |
| ExoBrite™ 410/450 IgG1 Isotype Control Flow Antibody | 416/452 nm | Isotype Control | None | Pacific Blue ™ | P008-410 |
| ExoBrite™ 490/515 IgG1 Isotype Control Flow Antibody | 490/516 nm | Isotype Control | None | FITC | P008-490 |
| ExoBrite™ 560/585 IgG1 Isotype Control Flow Antibody | 562/584 nm | Isotype Control | None | PE | P008-560 |
| ExoBrite™ R-PE IgG1 Isotype Control Flow Antibody | 496, 546, 565/578 | Isotype Control | None | PE | P008-RPE |
| ExoBrite™ 640/660 IgG1 Isotype Control Flow Antibody | 642/663 nm | Isotype Control | None | APC | P008-640 |