

# CD63 (Mouse) Recombinant Monoclonal Rat Antibody (24MS05.63) - Biotium Choice



CD63 (clone 24MS05.63) is a validated recombinant rat monoclonal antibody that recognizes the mouse tetraspanin protein CD63. The antibody belongs to the Biotium Choice list of select antibodies that have been formulated and validated in-house for optimal performance.

### **Product Description**

CD63 (clone 24MS05.63) is a recombinant rat monoclonal antibody that recognizes the mouse tetraspanin protein CD63. 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.

The tetraspanins are integral membrane proteins expressed on cell surface and granular membranes of hematopoietic cells and are components of multi-molecular complexes with specific integrins. The tetraspanin CD63 is a lysosomal membrane glycoprotein that translocates to the plasma membrane after platelet activation. CD63 is expressed on activated platelets, monocytes and macrophages, and is weakly expressed on granulocytes, T cell and B cells. It is located on the basophilic granule membranes and on the plasma membranes of lymphocytes and granulocytes. CD63 is a member of the TM4 superfamily of leukocyte glycoproteins that includes CD9, CD37 and CD53, which contain four transmembrane regions. CD63 may play a role in phagocytic and intracellular lysosome-phagosome fusion events. CD63 deficiency is associated with Hermansky-Pudlak syndrome and is strongly expressed during the early stages of melanoma progression.

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 <u>mouse CD9 (24MS04.9)</u> and <u>mouse/rat CD81 (24MS04.81)</u>.

#### **Exosome Stains and Antibodies**

Biotium also offers <a href="ExoBriteTM">ExoBriteTM</a> CD63 Flow Antibody and <a href="ExoBriteTM">ExoBriteTM</a> CD63 Western Antibody that are validated for optimal detection of isolated exosomes by flow cytometry or western blotting. <a href="Learn more about our products">Learn more about our products for exosome research.</a>

# 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 <a>CF®</a> <a>Dyes</a> for superior signal and clarity
- Also available with <u>Astral Leap™ tandem dyes</u> for expanding multiplexing
- New antibody clones and dye conjugates continuously in development

View our full catalog of Biotium Choice antibodies

## Call us: 800-304-5357 Email: techsupport@biotium.com

#### **Product attributes**

| Antibody number                       | #P020   |  |  |
|---------------------------------------|---|--|--|
| SwissProt                             | P41731  |  |  |
| <b>Biotium Choice Antibody</b>        | Primary   |  |  |
| Antibody type                         | Biotium Choice Flow Antibodies, Primary   |  |  |
| Clonality                             | Recombinant Monoclonal  |  |  |
| Host species                          | Rat   |  |  |
| Clone                                 | 24MS05.63   |  |  |
| Isotype                               | IgG2a, kappa  |  |  |
| Antibody reactivity (target)          | CD63  |  |  |
| Synonyms                              | LIMP, LAMP-3, gp55, melanoma-associated antigen, ME491  |  |  |
| Species reactivity                    | Mouse   |  |  |
| Human gene symbol                     | CD63  |  |  |
| Entrez gene ID                        | 12512   |  |  |
| Molecular weight                      | 53 kDa  |  |  |
| Antibody target cellular localization | Exosomes/EVs, Plasma membrane   |  |  |
| Cell/tissue expression                | Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages   |  |  |
| Verified antibody applications        | Flow (surface) (verified)   |  |  |
| Positive control                      | GARCF568 cell, NIH 3T3 cells  |  |  |
| Antibody application notes            | Recommended concentration for flow cytometry: 5 uL per million cells/0.1 mL $$  |  |  |
| Antibody research areas               | Exosomes/EVs  |  |  |
| Antibody/conjugate formulation        | Conjugates: PBS/0.1% BSA/0.05% azide, Purified, BSA-free: mg/mL in PBS without azide  |  |  |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when tored as recommended  |  |  |
| Storage Conditions                    | Store at -35 °C to -5 °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        |
|-------------------------------|------------|-----------|--------------------|---------------|---------------------|
| CF®405M                       | 416/452 nm | 100 ug/mL | 25 tests (125 uL)  | P020-405M-125 | CF®405M Features    |
|                               |            |           | 100 tests (500 uL) | P020-405M-500 |                     |
| <u>CF®488A</u> 490/510        | 490/516 nm | 100 ug/mL | 25 tests (125 uL)  | P020-488A-125 | CF®488A Features    |
|                               |            |           | 100 tests (500 uL) | P020-488A-500 |                     |
| <u>CF® 568</u>                | 562/584 nm | 100 ug/mL | 25 tests (125 uL)  | P020-568-125  | CF®568 Features     |
|                               |            |           | 100 tests (500 uL) | P020-568-500  |                     |
| <u>CF® 647Plus</u> 652/668 nm | 652/668 nm | 100 ug/mL | 25 tests (125 uL)  | P020-647P-125 | CF®647Plus Features |
|                               |            |           | 100 tests (500 uL) | P020-647P-500 |                     |
| Purified (BSA-free) N/A       | N/A        | 5 mg/mL   | 1 mg               | P020-1MG      |                     |
|                               |            |           | 5 mg               | P020-5MG      |                     |