

CD81 Monoclonal Mouse Antibody (5A6) - Biotium Choice

CD81 (clone 5A6) is a validated mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. The antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance.



Product Description

CD81 (clone 5A6) is a mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. 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-Phycoerythrin (R-PE or PE) or RPE-Astral™616. It is supplied in PBS, 0.1% BSA, 0.05% azide. CD81 has a very broad cellular distribution, being expressed on T- and B-lymphocytes, NK cells, thymocytes, eosinophils, fibroblasts, epithelial and endothelial cells. Neutrophils, erythrocytes and platelets are negative, while monocytes are variably positive. CD81 is a member of a family of tetraspanin transmembrane proteins, including CD9, CD37, CD53, CD63, and CD82. It associates with CD19, CD21, Leu 13, and integrins on cell membrane and is involved in signal transduction in B lymphocyte development and cell adhesion. CD81 also acts as a receptor for the envelope protein E2 of chronic hepatitis C virus. Antibodies to CD81 have anti-proliferative effects on different lymphoid cell lines, particularly those derived from large cell lymphomas. 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™ CD81 Flow Antibody](#) and [ExoBrite™ 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.](#)

Product attributes

| | |
|---------------------------------------|---|
| Antibody number | #P005 |
| Storage Conditions | Store at 2 to 8 °C |
| Shelf life | Guaranteed for at least 24 months from date of receipt when stored as recommended |
| Antibody/conjugate formulation | Purified: 0.5 mg/mL in PBS/0.05% azide, Conjugates: PBS/0.1% BSA/0.05% azide |
| Antibody research areas | Exosomes/EVs |
| Antibody application notes | Flow Cytometry: 0.5-1 ug/mL (or, 0.05-0.1 ug/million cells), Immunofluorescence: 1 ug/mL, Western Blot: 0.1 ug/mL |
| Positive control | Ramos, Daudi, Raji, U266, HUT-78, HUT-102, Jurkat, HL-60, KG1a, A293, A431, MG63, MCF-7, and human lymphocytes. Tonsil or liver tissue. |
| Verified antibody applications | Flow (surface) (verified), IF (verified), WB (verified) |
| Cell/tissue expression | Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages |
| Antibody target cellular localization | Exosomes/EVs, Plasma membrane |
| Molecular weight | 26 kDa |
| SwissProt | P60033 |
| Unigene | 54457 |
| Entrez gene ID | 975 |
| Human gene symbol | CD81 |
| Species reactivity | Baboon, Cynomolgus monkey, Human, Mouse (low reactivity), Non-human primates |
| Synonyms | CD81; Target of the antiproliferative antibody 1 (TAPA-1); Tetraspanin-28; Tspan-28 |
| Antibody reactivity (target) | CD81 |
| Isotype | IgG1, kappa |
| Clone | 5A6 |
| Host species | Mouse |
| Clonality | Monoclonal |
| Biotium Choice Antibody | Primary |
| Volume per assay | 5 uL/test |
| Antibody type | Biotium Choice Flow Antibodies, Primary |
| Regulatory status | For research use only (RUO) |

| Conjugation | Ex/Em | Conc. | Size | Catalog No. | Availability |
|--------------------------------|----------------------|-----------|---|--|---|
| CF@405M | 416/452 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-405M-125 P005S-405M-500 | Discontinued, see replacement P014-405M |
| CF@488A | 490/516 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-488A-125 P005S-488A-500 | Discontinued, see replacement P014-488A |
| CF@568 | 562/584 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-568-125 P005S-568-500 | Discontinued, see replacement P014-568 |
| RPE-Astral™616 | 496, 546, 566/617 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-R616-125 P005S-R616-500 | Available |
| CF@700 | 696/721 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-700-125 P005S-700-500 | Discontinued, see replacement P014-700 |
| R-PE | 496, 546, 565/576 nm | 100 ug/mL | 25 tests (125 uL) 100 tests (500 uL) | P005S-RPE-125 P005S-RPE-500 | Available |
| Purified (BSA-free, 0.5 mg/mL) | N/A | 0.5 mg/mL | 200 uL (100 ug) | P005-200uL | Discontinued, see replacement P014 |