Glowing products for science

# CD3e Monoclonal Mouse Antibody (SK7) - Biotium Choice

that T cell f

CD3e (clone SK7) is a validated mouse monoclonal antibody that recognizes the epsilon chain of the CD3 protein complex and T cell co-receptor. The antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance.

#### **Product Description**

CD3e (clone SK7) is a mouse monoclonal antibody derived from the extracellular domain of the CD3 epsilon chain. This antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance. The antibody is available conjugated to either a CF® Dye or Astral<sup>TM</sup> tandem dye. They are supplied in PBS, 0.1% BSA, 0.05% azide.

CD3 consists of five different polypeptide chains (designated as gamma, delta, epsilon, zeta, and eta) with MW ranging from 16-28 kDa. The CD3 complex is closely associated at the lymphocyte cell surface with the T cell antigen receptor (TCR). Reportedly, CD3 complex is involved in signal transduction to the T cell interior following antigen recognition. The CD3 antigen is first detectable in early thymocytes and probably represents one of the earliest signs of commitment to the T cell lineage. In cortical thymocytes, CD3 is predominantly intra-cytoplasmic. However, in medullary thymocytes, it appears on the T cell surface. CD3 antigen is a highly specific marker for T cells, and is present in majority of T cell neoplasms.

As an isotype control, we recommend <u>Isotype Control, Monoclonal Mouse IgG1 Kappa (IGG1/1331)</u> for this antibody.

## 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<sup>TM</sup> 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 href="#">CF® 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

#### **Product attributes**

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| Antibody number                          | #P002                                                                                                                                                                                                      |  |  |  |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Antibody reactivity (target)             | CD3e                                                                                                                                                                                                       |  |  |  |
| <b>Biotium Choice Antibody</b>           | Primary                                                                                                                                                                                                    |  |  |  |
| Antibody type                            | Biotium Choice Flow Antibodies, Primary                                                                                                                                                                    |  |  |  |
| Host species                             | Mouse                                                                                                                                                                                                      |  |  |  |
| Clonality                                | Monoclonal                                                                                                                                                                                                 |  |  |  |
| Clone                                    | SK7                                                                                                                                                                                                        |  |  |  |
| Isotype                                  | IgG1, kappa                                                                                                                                                                                                |  |  |  |
| Molecular weight                         | 23 kDa                                                                                                                                                                                                     |  |  |  |
| Synonyms                                 | CD3 epsilon; CD3 TCR complex; T cell antigen receptor complex epsilon subunit of T3; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell surface glycoprotein CD3 epsilon chain; T3E; TCRE; TiT3 complex |  |  |  |
| Human gene symbol                        | CD3E                                                                                                                                                                                                       |  |  |  |
| Entrez gene ID                           | <b>ID</b> 916                                                                                                                                                                                              |  |  |  |
| SwissProt                                | P07766                                                                                                                                                                                                     |  |  |  |
| Unigene                                  | 3003                                                                                                                                                                                                       |  |  |  |
| Immunogen                                | Human thymocytes                                                                                                                                                                                           |  |  |  |
| Antibody target cellular<br>localization | Plasma membrane                                                                                                                                                                                            |  |  |  |
| Verified antibody applications           | Flow (surface) (verified)                                                                                                                                                                                  |  |  |  |
| Species reactivity                       | Human                                                                                                                                                                                                      |  |  |  |
| Antibody application notes               | Recommended concentration for flow cytometry: 5 uL per million cells/0.1 mL $$                                                                                                                             |  |  |  |
| Positive control                         | Human peripheral blood mononuclear cells (PBMCs),<br>CCRF-CEM or HL-60                                                                                                                                     |  |  |  |
| Shipping condition                       | Room temperature                                                                                                                                                                                           |  |  |  |
| Storage Conditions                       | Store at 2 to 8 $^{\circ}\text{C},$ Protect fluorescent conjugates from light                                                                                                                              |  |  |  |
| Shelf life                               | Guaranteed for at least 24 months from date of receipt when stored as recommended                                                                                                                          |  |  |  |
| Regulatory status                        | For research use only (RUO)                                                                                                                                                                                |  |  |  |
| Antibody/conjugate formulation           | Conjugates: PBS/0.1% BSA/0.05% azide                                                                                                                                                                       |  |  |  |
| Volume per assay                         | 5 uL/test                                                                                                                                                                                                  |  |  |  |
| Antibody research areas                  | Immunology                                                                                                                                                                                                 |  |  |  |
| Cell/tissue expression                   | Lymphocytes, T-cells                                                                                                                                                                                       |  |  |  |
| 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.                            |  |  |  |
| Tumor expression                         | Leukemia/lymphoma                                                                                                                                                                                          |  |  |  |

Email: techsupport@biotium.com

### CD3e Monoclonal Mouse Antibody (SK7) - Biotium Choice

| Conjugation                                       | Ex/Em                | Conc.             | Size               | Catalog No.      | Dye Features     |
|---------------------------------------------------|----------------------|-------------------|--------------------|------------------|------------------|
| <u>CF®405S</u> 411/431 nm                         | 300 ug/mL            | 25 tests (125 uL) | P002-405S-125      | CF®405S Features |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-405S-500    |                  |
| <u>CF®405M</u> 416/452 nm                         | 300 ug/mL            | 25 tests (125 uL) | P002-405M-125      | CF®405M Features |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-405M-500    |                  |
| <u>CF®405L</u> 413/547 nm                         | 200 ug/mL            | 25 tests (125 uL) | P002-405L-125      | CF®405L Features |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-405L-500    |                  |
| <u>CF®488A</u> 490/516 nm                         | 490/516 nm           | 200 ug/mL         | 25 tests (125 uL)  | P002-488A-125    | CF®488A Features |
|                                                   |                      |                   | 100 tests (500 uL) | P002-488A-500    |                  |
| <u>CF®503R</u> 503/532 nm                         | 503/532 nm           | 200 ug/mL         | 25 tests (125 uL)  | P002-503R-125    | CF®503R Features |
|                                                   |                      |                   | 100 tests (500 uL) | P002-503R-500    |                  |
| <u>CF®514</u> 516/549 nm                          | 200 ug/mL            | 25 tests (125 uL) | P002-514-125       | CF®514 Features  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-514-500     |                  |
| <u>CF®568</u> 562/584 nm                          | 200 ug/mL            | 25 tests (125 uL) | P002-568-125       | CF®568 Features  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-568-500     |                  |
| <u>CF®575</u> 571/601 nm                          | 150 ug/mL            | 25 tests (125 uL) | P002-575-125       |                  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-575-500     |                  |
| RPE-Astral <sup>TM</sup> 616 496, 546, 566/617 nm | 100 ug/mL            | 25 tests (125 uL) | P002-R616-125      |                  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-R616-500    |                  |
| <u>CF®647Plus</u> 652/668 nm                      | 100 ug/mL            | 25 tests (125 uL) | P002-647P-125      |                  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-647P-500    |                  |
| <u>CF®660C</u> 667/685 nm                         | 300 ug/mL            | 25 tests (125 uL) | P002-660C-125      | CF®660C Features |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-660C-500    |                  |
| <u>CF®700</u> 696/721 nm                          | 200 ug/mL            | 25 tests (125 uL) | P002-700-125       | CF®700 Features  |                  |
|                                                   |                      | -                 | 100 tests (500 uL) | P002-700-500     |                  |
| <u>CF®820</u> 822/835 nm                          | 822/835 nm           | 20 ug/mL          | 25 tests (125 uL)  | P002-820-125     | CF®820 Features  |
|                                                   |                      | -                 | 100 tests (500 uL) | P002-820-500     |                  |
| R-PE 496, 546, 565/576 nm                         | 496, 546, 565/576 nm | 100 ug/mL         | 25 tests (125 uL)  | P002-RPE-125     |                  |
|                                                   |                      | -                 | 100 tests (500 uL) | P002-RPE-500     |                  |
| APC 651/660 nm                                    | 200 ug/mL            | 25 tests (125 uL) | P002-APC-125       |                  |                  |
|                                                   |                      |                   | 100 tests (500 uL) | P002-APC-500     |                  |