**Product Information**

**Material Number:** 565511

**Alternate Name:** CD3-epsilon; CD3E; Leu4; T-cell surface antigen T3/Leu-4 epsilon chain; T3E

**Size:** 50 Tests

**Vol. per Test:** 5 µl

**Clone:** SK7  (also known as Leu-4)

**Immunogen:** Human Thymocytes

**Isotype:** Mouse (BALB/c) IgG1, κ

**Reactivity:** QC Testing: Human

**Workshop:** II T118; III T492

**Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The SK7 (Leu-4) monoclonal antibody specifically binds to the epsilon chain of the CD3 antigen/T-cell antigen receptor (TCR) complex. This complex is composed of at least six proteins that range in molecular weight from 20 to 30 kDa. The antigen recognized by CD3 antibodies is noncovalently associated with either α/β or γ/δ TCR (70 to 90 kDa). The CD3 antigen is present on 61% to 85% of normal peripheral blood lymphocytes 60% to 85% of thymocytes and on Purkinje cells in the cerebellum. The soluble form of this antibody has a mitogenic effect on most peripheral blood T lymphocytes, provided appropriate functional monocytes are present.

The antibody was conjugated to BD Horizon BUV805 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 with an Ex Max of 348 nm and an acceptor dye with an Em Max at 805 nm. BD Horizon Brilliant BUV805 can be excited by the ultraviolet laser (355 nm) and detected with a 820/60 filter and a 770LP.

**Flow cytometric analysis of CD3 expression on human peripheral blood lymphocytes.** Whole blood was stained with BD Horizon™ BUV805 Mouse IgG1, κ Isotype Control (Cat. No. 564909; dashed line histogram) or BD Horizon BUV805 Mouse Anti-Human CD3 antibody (Cat. No. 565511; solid line histogram). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). The fluorescence histogram showing CD3 expression (or Ig Isotype control staining) was derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

**Preparation and Storage**

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon BUV805 under optimum conditions, and unconjugated antibody and free BD Horizon BUV805 were removed.

**Application Notes**

**Application**

<table>
<thead>
<tr>
<th>Flow cytometry</th>
<th>Routinely Tested</th>
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</table>

**Recommended Assay Procedure:**

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).
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<thead>
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<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<td>563794</td>
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<td>564909</td>
<td>BUV805 Mouse IgG1, k Isotype Control</td>
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<td>349202</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. BD Horizon Brilliant Ultraviolet 805 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.
6. An isotype control should be used at the same concentration as the antibody of interest.

References