

**XFD647 Anti-human CD3 Antibody \*SK7,  
XFD647 Same Structure to Alexa Fluor™  
647\***Catalog number: 10033180, 10033181  
Unit size: 100 tests, 500 tests**Product Details**

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|--------------------|---|
| Storage Conditions | 2-8°C with minimized light exposure. Do not freeze.                         |
| Expiration Date    | 12 months upon receiving  |
| Concentration      | 0.1 mg/mL   |
| Formulation        | Phosphate-buffered saline (PBS, pH 7.2), 0.09% sodium azide, 0.2% (w/v) BSA |

**Antibody Properties**

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|                    |            |
|--------------------|------------|
| Species Reactivity | Human      |
| Class              | Primary    |
| Clonality          | Monoclonal |
| Host               | Mouse      |
| Immunogen          | CD3e (T3E) |
| Clone              | SK7        |
| Conjugate          | AF647      |

**Biological Properties**

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|             |  |
|-------------|--|
| Appearance  | Dark blue liquid   |
| Preparation | Antibody purified by affinity chromatography and then conjugated with AF647 under optimal conditions |
| Application | Flow Cytometry (FACS), Fluorescence Imaging  |

**Spectral Properties**

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|                       |        |
|-----------------------|--------|
| Conjugate             | AF647  |
| Excitation Wavelength | 650 nm |
| Emission Wavelength   | 671 nm |

**Applications**

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The SK7 monoclonal antibody reacts with human CD3e, a 20 kD member of the Ig superfamily often found on the surface of t cells, tregs and nkt cells. In many organisms, CD3 positively regulates interleukin-2 biosynthetic process, enhances cell-matrix adhesion and is a positive regulator of gene expression. Moreover, it plays a role in essential cellular pathways, for example, the T cell receptor signaling pathway, negative regulation of smoothened signaling pathway and apoptotic signaling pathway. From a research standpoint, it is of biological interest due to its

association with vital macromolecules/ligands like TCR. CD3 is a very popular antibody target, with over 80000 publications in the last decade. CD3e is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, particularly in the study of immunology. This antibody was purified through affinity chromatography and conjugated to XFD647 (ex/em = 650/671 nm). XFD647 is manufactured by AAT Bioquest, and it has the same chemical structure of Alexa Fluor® 647 (Alexa Fluor® is the trademark of ThermoFisher). It is compatible with the 642 nm laser and 702/85 nm bandpass filter (for example, as in the Luminex Amnis FlowSight).