

**XFD488 Anti-human CD2 Antibody \*HIT11\***

Catalog Number: 10020150, 10020151

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      | Lot specific (please consult certificate of analysis for given lot)         |
| 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                           |
| Isotype            | Mouse IgG1                      |
| Immunogen          | CD2 (LFA-2, Erythrocyte R, T11) |
| Clone              | HIT11                           |
| Conjugate          | AF488                           |

**Biological Properties**

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| Appearance            | Orange liquid                                                                                                                                                                                                                              |
| Preparation           | Antibody purified by affinity chromatography and then conjugated with AF488 under optimal conditions                                                                                                                                       |
| Application           | Flow Cytometry (FACS), Fluorescence Imaging                                                                                                                                                                                                |
| Recommended Dilutions | For flow cytometry applications, the suggested concentration is at 5 uL/million cells in 100 uL staining buffer. For the best performance of each application, the optimal concentration of this reagent needs to be carefully determined. |
|                       | <i>*The suggested working dilution is provided as a guide only. It is recommended that the users titrates the product for use in their tests using proper positive and negative controls.</i>                                              |

**Spectral Properties**

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|                       |        |
|-----------------------|--------|
| Conjugate             | AF488  |
| Excitation Wavelength | 499 nm |
| Emission Wavelength   | 520 nm |

## Applications

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HIT11 is an anti-human monoclonal antibody that recognizes the CD2 antigen. CD2 (sometimes referred to as LFA-2) is a 45 kD single-pass type I membrane protein that is found on the surface of cells like T cells. CD2 has been thought to be involved with key biological processes such as cell-cell adhesion, especially heterotypic cell-cell adhesion. Also, in some organisms, it enhances myeloid dendritic cell activation, acts to positively regulate interferon-gamma secretion and is an enhancer of tumor necrosis factor production. CD2 is involved with key cellular pathways, for instance, the cell surface receptor signaling pathway. From a research standpoint, it is of biological interest due to its association with critical macromolecules/ligands such as LFA-3, CD59, CD58 and CD48. CD2 is a moderately popular antibody target, with over 16000 publications in the last decade. CD2 is often 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 XFD488 (ex/em = 499/520 nm). XFD488 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 488 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 488 nm laser and 525/50 nm bandpass filter (for example, as in the Miltenyi Biotec MACSQuant VYB).