

## XFD488 Anti-human CD19 Antibody \*HI19a\*

Catalog Number: 10190150, 10190151

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          | CD19 (B4)  |
| Clone              | HI19a      |
| 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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HI19a is an anti-human monoclonal antibody that targets the CD19 antigen. CD19 (also known as T-cell surface antigen Leu-12 or B-lymphocyte surface antigen B4) is a 95 kD transmembrane glycoprotein that is found on the surface of cells like B cells and stem cells. CD19 plays a role in critical cellular pathways, in particular, the antigen receptor-mediated signaling pathway and B cell receptor signaling pathway. Furthermore, in certain organisms, it plays a role in the upregulation of phosphatidylinositol 3-kinase activity, positively regulates release of sequestered calcium ion into cytosol and plays a role in the upregulation of protein kinase B signaling. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands such as CD81 and Leu-13. CD19 is a very popular antibody target, with over 36000 publications in the last decade. CD19 is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, specifically in the study of immunology and costimulatory molecules. 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 BD Special Order LSRFortessa™ Cell Analyzer).