

**XFD647 Anti-human CD38 Antibody \*HIT2,  
XFD647 Same Structure to Alexa Fluor™  
647\***Catalog number: 10380180, 10380181  
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                           |
| Isotype            | Mouse IgG1                      |
| Immunogen          | CD38 (ADP-ribosyl cyclase, T10) |
| Clone              | HIT2                            |
| 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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HIT2 is an anti-human monoclonal antibody that targets the CD38 antigen. CD38 (alternatively called T10) is a 45 kD transmembrane protein that is found on the surface of cells such as NK cells, macrophages and stem cells. CD38 is a component of vital cellular pathways, namely, the

apoptotic signaling pathway and B cell receptor signaling pathway. In addition, in certain organisms, it represses apoptotic process, is a positive regulator of cell growth and is an enhancer of vasoconstriction. From a research standpoint, it is of biological interest due to its association with critical macromolecules/ligands like HLA Class II, CD31, CD16 and Hyaluronic acid. CD38 is a fairly uncommon antibody target, with a little more than 10000 publications in the last decade. Even still, CD38 has been widely used in immunology research, commonly serving as a phenotypic marker for differentiating cell types in flow cytometric applications. 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 664/20 nm bandpass filter (for example, as in the Luminex Guava easyCyte).