

## XFD350 Anti-human CD38 Antibody \*HIT2\*

Catalog Number: 10380140, 10380141

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          | CD38 (ADP-ribosyl cyclase, T10) |
| Clone              | HIT2                            |
| Conjugate          | AF350                           |

### Biological Properties

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appearance            | Off-white liquid                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Preparation           | Antibody purified by affinity chromatography and then conjugated with AF350 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.<br><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             | AF350  |
| Excitation Wavelength | 343 nm |
| Emission Wavelength   | 441 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 XFD350 (ex/em = 343/441 nm). XFD350 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 350 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 355 nm laser and 450/50 nm bandpass filter (for example, as in the BD Special Order LSRFortessa™ Cell Analyzer).