

## XFD647 Anti-human/ rabbit/ cat/ non-human primates/ ferret CD271 Antibody \*NGFR5\*

Catalog Number: 12710180, 12710181

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, rabbit, cat, non-human primates, ferret |
| Class              | Primary  |
| Clonality          | Monoclonal                                     |
| Host               | Mouse  |
| Isotype            | Mouse IgG1                                     |
| Immunogen          | CD271 (p75NTR, TNFRSF16, NGFR, Gp80-LNGFR)     |
| Clone              | NGFR5  |
| 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   |
| 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             | AF647  |
| Excitation Wavelength | 650 nm |
| Emission Wavelength   | 671 nm |

## Applications

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NGFR5 is an anti-human/ rabbit/ cat/ non-human primates/ ferret monoclonal antibody that is specific for the CD271 antigen. CD271 (sometimes referred to as TNFRSF16 or Gp80-LNGFR) is a 75 kD transmembrane protein that is found on the surface of cells like dendritic cells. CD271 is a component of important cellular pathways, namely, the neurotrophin TRK receptor signaling pathway, negative regulation of fibroblast growth factor receptor signaling pathway and positive regulation of apoptotic signaling pathway. Also, it has been associated with critical biological processes like glucose homeostasis, especially cellular glucose homeostasis. In certain organisms, CD271 plays a role in the upregulation of pri-miRNA transcription by RNA polymerase II, positively regulates apoptotic process and is a negative regulator of hair follicle development. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands like NT-3 and NT-4. CD271 is a fairly uncommon antibody target, with a little more than 1700 publications in the last decade. Even still, CD271 is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of stem cells, immunology and neuroscience. 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 a chemical structure similar to that of Alexa Fluor® 647 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 642 nm laser and 702/87 nm bandpass filter (for example, as in the Luminex Amnis CellStream).