

**PacBlue Anti-human CD142 Antibody**  
**\*HTF-1\***Catalog number: 11420110, 11420111  
Unit size: 100 tests, 500 tests**Product Details**

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| 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**

|                    |                           |
|--------------------|---------------------------|
| Species Reactivity | Human                     |
| Class              | Primary                   |
| Clonality          | Monoclonal                |
| Host               | Mouse                     |
| Isotype            | Mouse IgG1 kappa          |
| Immunogen          | CD142 (Tissue factor, F3) |
| Clone              | HTF-1                     |
| Conjugate          | PacBlue                   |

**Biological Properties**

|             |                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------|
| Appearance  | Light yellow liquid                                                                                    |
| Preparation | Antibody purified by affinity chromatography and then conjugated with PacBlue under optimal conditions |
| Application | Flow Cytometry (FACS), Fluorescence Imaging                                                            |

**Spectral Properties**

|                       |         |
|-----------------------|---------|
| Conjugate             | PacBlue |
| Excitation Wavelength | 404 nm  |
| Emission Wavelength   | 455 nm  |

**Applications**

HTF-1 is an anti-human monoclonal antibody that is specific for the CD142 antigen. CD142 (sometimes referred to as Tissue factor or F3) is a 45 kD single-pass type I membrane protein that is found on the surface of cells such as endothelial cells, epithelial cells and macrophages. CD142 has been closely linked to key biological processes like blood coagulation, specifically activation of blood coagulation via clotting cascade.

Furthermore, it plays a role in vital cellular pathways, in particular, the cytokine-mediated signaling pathway, positive regulation of platelet-derived growth factor receptor signaling pathway and blood coagulation, extrinsic pathway. In certain organisms, CD142 promotes angiogenesis, upregulates endothelial cell proliferation and is involved in the positive regulation of cell migration. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands like factor Xa/TFPI and factor VIIa. CD142 is a relatively rare antibody target, with fewer than 200 publications in the last decade. Even still, CD142 is vital to angiogenesis research, typically serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to PacBlue (ex/em = 404/455 nm). It is compatible with the 405 nm laser and 457/45 nm bandpass filter (for example, as in the Luminex Amnis FlowSight).