

**mFluor™ Violet 450 Anti-human CD142
Antibody *HTF-1***Catalog number: 114200Z0, 114200Z1
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	mFluor™ Violet 450

Biological Properties

Appearance	Light yellow liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with mFluor™ Violet 450 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging

Spectral Properties

Conjugate	mFluor™ Violet 450
Excitation Wavelength	406 nm
Emission Wavelength	445 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 mFluor™ Violet 450 (ex/em = 406/445 nm). It is compatible with the 405 nm laser and 450/50 nm bandpass filter (for example, as in the BD Special Order LSRFortessa™ Cell Analyzer).