

DESCRIPTION

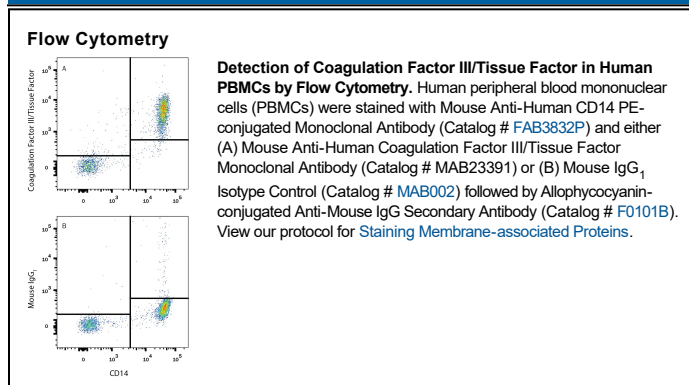
Species Reactivity	Human
Specificity	Detects human Coagulation Factor III/Tissue Factor in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse Coagulation Factor III/Tissue Factor is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 323519
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Coagulation Factor III Gly34-Glu251 Accession # P13726
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Coagulation Factor III/Tissue Factor (Catalog # 2339-PA)
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Coagulation Factor III/Tissue Factor (TF), also known as thromboplastin and CD142, is a type I transmembrane protein found in a variety of cell types. It functions as a protein cofactor/receptor of Coagulation Factor VII, which is synthesized in the liver and circulated in the plasma (1). Upon binding of TF, the inactive factor VII is rapidly converted into activated VIIa. The resulting 1:1 complex of VIIa and TF initiates the coagulation pathway and has also important coagulation-independent functions such as angiogenesis (2). TF is synthesized as a 295 amino acid (aa) precursor, with a signal peptide (aa 1-32), an extracellular domain (aa 33-251), a transmembrane region (aa 252-274) and a cytoplasmic tail (aa 275-295) (3-6).

References:

1. Morrissey, J.H. (2004) in Handbook of Proteolytic Enzymes. Barrett, A.J. *et al.* (ed) San Diego, Academic Press, p. 1659.
2. Versteeg, H.H. *et al.* (2003) Carcinogenesis **24**:1009.
3. Scarpati, E.M. *et al.* (1987) Biochemistry **26**:5234.
4. Fisher, K.L. *et al.* (1987) Thromb. Res. **48**:89.
5. Morrissey, J.H. *et al.* (1987) Cell **50**:129.
6. Spicer, E.K. (1987) Proc. Natl. Acad. Sci. USA **84**:5148.