



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human Coagulation Factor III

Catalog No.
228-11517

Source
Escherichia Coli

Synonyms

Tissue factor, Coagulation factor III, Thromboplastin, CD142, TF, F3, TFA.

Introduction

Tissue factor is well-known as the main cellular initiator of blood coagulation. The Tissue factor gene encodes coagulation factor III which is a cell surface glycoprotein that enables cells to initiate the blood coagulation cascades, and functions as the high-affinity receptor for the coagulation factor VII. Following vessel injury, the Tissue Factor and Factor VIIa complex activates the coagulation protease cascade, which leads to fibrin deposition and activation of platelets. The ensuing complex presents a catalytic event, which is responsible for initiation of the coagulation protease cascades by specific limited proteolysis. Therefore, Tissue factor has a role in normal hemostasis by initiating the cell-surface assembly and propagation of the coagulation protease cascade. Tissue Factor can also be stimulated by the inflammatory mediators interleukin 1 and TNF, as well as by endotoxin, to appear on monocytes and vascular endothelial cells as a component of cellular immune response.

Tissue factor is the only one in the coagulation pathway for which a congenital deficiency has not been described. Certain levels of Tissue Factor are essential for the maintained viability and growth of endothelium and Tissue Factor-expressing tumor cells. Additionally, abnormal Tissue Factor expression inside the vasculature initiates life threatening thrombosis in various diseases, for example sepsis, atherosclerosis, and cancer. Alternative spliced Tissue Factor expression advances tumor growth, and is linked to increased tumor cell proliferation and angiogenesis in pancreatic cancer.

Description

Tissue factor Human Recombinant produced in E.Coli is single, a non-glycosylated, Polypeptide chain containing 219 amino acids of the extracellular domain (33-251) having a molecular mass of 29.39 kDa and fused with a 4.5kDa amino-terminal hexahistidine tag.

The Tissue factor is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Formulation

Tissue factor protein is supplied in 22mM Tris.HCl pH8.0, 1mM EDTA and 50% glycerol.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store frozen at -20°C for longer periods of time.

Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

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