



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Tissue Inhibitor of Metalloprotease 1

Catalog No.
228-11516

Source
Escherichia Coli

Synonyms

Metalloproteinase inhibitor 1, Tissue inhibitor of metalloproteinases, TIMP-1, Erythroid-potentiating activity, EPA, Fibroblast collagenase inhibitor, Collagenase inhibitor, TIMP1, CLGI, TIMP, EPO, HCI, FLJ90373.

Introduction

TIMP1 is a member of the TIMP family. TIMP1 is an inducible glycoprotein produced by various cell types. The TIMP1 glycoprotein is a natural inhibitor of the matrix metalloproteinases, which a group of peptidases involved in degradation of the extracellular matrix. TIMP1 binds in a reversible mode to MMPs, with regions in the N-terminal domain binding to the MMP substrate-binding site. On top of its inhibitory function against most of the known MMPs, TIMP1 is able to promote cell proliferation in a broad range of cell types, and may also have an anti-apoptotic role. Furthermore, TIMP1 has erythroid-potentiating activity via translocation to the nucleus and also inhibits apoptosis in B-cells.

The TIMP1 gene is situated within intron 6 of the synapsin I gene and is transcribed in the opposite direction. TIMP1 activity is dependent on the existence of disulfide bonds.

TIMP1 transcription is extremely inducible in reaction to many cytokines and hormones.

Increased TIMP1 levels are connected with squamous cell laryngeal carcinoma. TIMP1 overexpression is linked to gastric cancer.

Description

TIMP1 Human Recombinant produced in E.Coli is single, a non-glycosylated, Polypeptide chain containing 184 amino acids fragment (24-207) having a total molecular mass of 25.21kDa and fused with a 4.5kDa amino-terminal hexahistidine tag. The TIMP1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Formulation

TIMP1 protein is supplied in 25mM Sodium acetate pH4.8 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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