



# Human tissue inhibitors of metalloproteinase 2, TIMP-2 ELISA Kit

Product Code	CSB-E04733h
Abbreviation	TIMP2
Target Name	TIMP metalloproteinase inhibitor 2
Uniprot No.	P16035
Alias	CSC-21K, tissue inhibitor of metalloproteinase 2 tissue inhibitor of metalloproteinases 2
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	78 pg/mL-5000 pg/mL
Sensitivity	19.5 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cancer
Gene Names	TIMP2
Tag Info	quantitative
Protein Description	Sandwich

## Description

The human TIMP2 ELISA kit (CSB-E04733h) is designed for the quantitative measurement of human TIMP2 protein in serum, plasma, or tissue homogenates. It quantitates human TIMP2 with 19.5 pg/ml sensitivity and shows excellent specificity for human TIMP2. It uses the bi-antibody sandwich enzyme immunoassay technique. This assay employs a biotin-conjugated TIMP2 antibody that recognizes the analyte bound by the immobilized TIMP2 antibody, forming an antibody-analyte-antibody complex. The immune complex is further detected by avidin-conjugated HRP. The TMB solution is added into the wells and turns blue and finally turns yellow after the addition of the stop solution. Solution color develops in proportion to the amount of TIMP2 in the sample. The O.D. value is measured using a microplate reader at 450 nm and is used to determine the concentration of the human TIMP2 in the sample.

TIMP-2 functions as an endogenous inhibitor of matrix metalloproteinases (MMPs). In addition to its MMP-2-dependent functions, TIMP-2 can modulate



signaling pathways by direct interaction with the cell surface receptors on normal and cancer cells. TIMP-2 also mediates anti-angiogenic effects by suppressing endothelial cell migration and invasion through  $\alpha 3 \beta 1$  integrin. In cancers, TIMP2 has been shown to exert some MMP-independent functions, including inhibition of tumor growth and angiogenesis, reduction of vascular permeability, suppression of tumor cell migration and invasion, as well as inhibition of the epithelial-to-mesenchymal transition (EMT).

**Target Details**

This gene is a member of the TIMP gene family. The proteins encoded by this gene family are natural inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of the extracellular matrix. In addition to an inhibitory role against metalloproteinases, the encoded protein has a unique role among TIMP family members in its ability to directly suppress the proliferation of endothelial cells. As a result, the encoded protein may be critical to the maintenance of tissue homeostasis by suppressing the proliferation of quiescent tissues in response to angiogenic factors, and by inhibiting protease activity in tissues undergoing remodelling of the extracellular matrix.

**Product Precision****Linearity****Recovery****Typical****Msds**

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