

# Recombinant Human Tissue Inhibitor of Metalloproteinases 2 (rHuTIMP-2)

## ChemWhat Technical Data Sheet (TDS)

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<b>Catalog Number:</b>	402-06
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 21.8 kDa, a single non-glycosylated polypeptide chain containing 194 amino acids.
<b>Quantity:</b>	2µg /10µg /1000µg
<b>AA Sequence:</b>	CSCSPVHPQQ AFCNADVIR AKAVSEKEVD SGNDIYGNPI KRIQYEIKQI KMFKGPEKDI EFIYTAPSSA VCGVSLDVGG KKEYLIAGKA EGDGKMHITL CDFIVPWDTL STTQKKSLSNH RYQMGCECKI TRCPMIPCYI SSPDECLWMD WVTEKNINGH QAKFFACIKR SDGSCAWYRG AAPPKQEFLL IEDP
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The biologically active as determined by its ability to inhibit human MMP-2 cleavage of a fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH <sub>2</sub> .
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 3 % trehalose.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuTIMP-2 as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C . Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### *Human Tissue Inhibitor of Metalloproteinases 2*

TIMPs-1 through -4 regulate the activity of zinc metalloproteases known as MMPs, ADAMs and ADAMTSs. Structurally, TIMPs contain two domains. The N-terminal domain binds to the active site of mature metalloproteases via a 1:1 non-covalent interaction, blocking access of substrates to the catalytic site. In addition, The C-terminal domain of TIMP-1 and TIMP-2 binds to the hemopexin-like domain of pro-MMP-9 and pro-MMP-2, respectively. The latter binding is essential for the cell surface activation of MMP-2 by MMP-14.