# Datasheet: PHP174

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| **Description:** | RECOMBINANT HUMAN CTGF |
| **Name:** | CTGF |
| **Other names:** | CONNECTIVE TISSUE GROWTH FACTOR |
| **Format:** | Rec. Protein |
| **Product Type:** | Recombinant Protein |
| **Quantity:** | 20 µg |

## Product Details

**Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

| | Yes | No | Not Determined | Suggested Dilution |
|---|---|---|---|---|
| ELISA | ▪ | | | 0.2 - 0.4ng/well |
| Western Blotting | ▪ | | | 1.5 - 3.0ng/lane |
| Functional Assays | ▪ | | | 1.0 - 2.0ug/ml |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

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| **Target Species** | Human |
| **Product Form** | Purified recombinant protein - lyophilised |
| **Reconstitution** | Reconstitute with 0.2ml distilled water.<br>Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. |
| **Preparation** | Purified recombinant CTGF expressed in *E.coli* |
| **Buffer Solution** | 10mM Sodium Acetate |
| **Preservative Stabilisers** | None present |
| **Endotoxin Level** | <1EU/ug |
| **Approx. Protein Concentrations** | Total protein concentration 0.1mg/ml after reconstitution |
| **External Database Links** | **UniProt:**<br>P29279 Related reagents |

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| | **Entrez Gene:**<br>1490 CTGF Related reagents |
| **Synonyms** | CCN2, HCS24, IGFBP8 |
| **Product Information** | CTGF (connective tissue growth factor) is a heparin-binding pleiotropic growth factor and member of the CCN family of secreted cysteine rich regulatory proteins, which interacts with other growth factors including transforming growth factor beta (TGF-beta), vascular endothelial growth factor (VEGF) and bone morphogenetic proteins (BMPs).<br><br>CTGF promotes the adhesion of epithelial cells and fibroblasts, stimulates integrin expression, and promotes endothelial cell survival, migration and adhesion, implicating CTGF in angiogenesis. CTGF is involved in chondrogenesis and potentially skeletogenesis, induces extracellular matrix formation and has also been implicated in wound healing. |
| **Molecular Weight** | 11.2kD (98 amino acid residues) |
| **Activity** | Determined by the dose-dependent stimulation of the proliferation of HUVEC cells. The expected $ED_{50}$ for this effect is 1.0-2.0 µg/ml. |
| **Purity** | >95% by SDS PAGE/HPLC analysis |
| **ELISA** | PHP174 may be used as a standard in a sandwich ELISA with AHP1278 as a capture reagent and AHP1278B as the detection reagent. |
| **Western Blotting** | PHP174 may be used as a positive control for western blotting for either AHP1278 or AHP1278B. |
| **References** | 1. Waddell, J.M. *et al.* (2011) CTGF expression is up-regulated by PROK1 in early pregnancy and influences HTR-8/Svneo cell adhesion and network formation. Hum Reprod. 26 (1): 67-75. |
| **Storage** | Prior to reconstitution store at +4°C.<br>After reconstitution store at -20°C.<br>Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
| **Shelf Life** | 3 months from date of reconstitution. |
| **Health And Safety Information** | Material Safety Datasheet Documentation #10317 available at:<br>https://www.bio-rad-antibodies.com/uploads/MSDS/10317.pdf |
| **Regulatory** | For research purposes only |


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